AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1-33. (Cancelled)

34. (Currently Amended) A method for manufacturing a tyre, comprising:

disposing an uncured elastomeric material on a substantially rigid support~~, so as to form~~ for forming a green tyre;

inserting said green tyre disposed on said support into a vulcanization mold;

closing the vulcanization mold ~~so as to define~~ for defining a molding cavity between an outer surface of said support and an inner surface of said vulcanization mold; and

molding and curing [[the]] said green tyre, at least one portion of [[the]] said green tyre being molded and cured at a substantially constant volume in at least one portion of said molding cavity;

wherein [[the]] said step of disposing said uncured elastomeric material on [[the]] said support comprises:

determining a first excess material volume curve of said elastomeric material with respect to an available volume in said at least one portion of [[the]] said molding cavity versus a predetermined direction; and

controlling a volume distribution of said elastomeric material on said rigid support so as to substantially fit said first curve.

35. (Previously Presented) The method according to claim 34, wherein said step of controlling said volume distribution of elastomeric material on said support comprises:

determining a first positioning specification set for machinery associated with a deposition of said uncured elastomeric material on said support corresponding to said first excess material volume curve; and

moving said machinery according to said first positioning specification set.

36. (Currently Amended) The method according to claim 35, wherein said step of determining said first excess material volume curve comprises:

providing a target excess material volume curve;

providing ~~at least~~ a second positioning specification set for said machinery;

determining a second excess material volume curve corresponding to said second positioning specification set; and

comparing said second curve with said target curve~~, so as to determine~~ for determining volume distribution differences between said second curve and said target curve versus said predetermined direction.

37. (Currently Amended) The method according to claim 36, further comprising:

determining a first cross-section profile of at least one portion of said green tyre from said second positioning specification set.

38. (Currently Amended) The method according to claim 37, further comprising:

modifying said first cross-section profile using said volume distribution differences between said second curve and said target curve, thereby determining a second cross-section profile of said at least one portion of said green tyre.

39. (Previously Presented) The method according to claim 38, wherein said step of determining said first positioning specification set for said machinery comprises:

determining said first positioning specification set at least from said second cross-section profile.

40. (Previously Presented) The method according to claim 35, wherein said machinery comprises a robotized arm associated with said support.

41. (Previously Presented) The method according to claim 34, wherein said step of disposing said uncured elastomeric material on said support comprises extruding said uncured elastomeric material in the form of elongated elements including said elastomeric material.

42. (Currently Amended) The method according to claim 35, wherein said first positioning specification set comprises a plurality of positioning records, each of said positioning records comprising at least spatial coordinates of a predetermined point of a cross-section of [[said]] an elongated element.

43. (Currently Amended) The method according to claim 36, wherein at least one of said first, second or target excess material volume [[curve]] curves represents the following function:

$$EM(y) = \frac{V_{mat}(y) - V_{mold}(y)}{V_{mold}(y)}$$

wherein y is a variable representing said predetermined direction, $V_{mat}(y)$ is a volume of said elastomeric material between a reference point of said vulcanization mold and a value y of said variable, and $V_{mold}(y)$ is a volume of said mold cavity between said reference point and said value y.

44. (Currently Amended) The method according to claim 36, wherein at least one of said first, second or target excess material volume [[curve]] curves represents the following function:

$$\Delta M(y) = V_{mat}(y) - V_{mold}(y)$$

wherein *y* is a variable representing said predetermined direction, $V_{mat}(y)$ is a volume of said elastomeric material between a reference point of said vulcanization mold and a value *y* of said variable, and $V_{mold}(y)$ is a volume of said mold cavity between said reference point and said value *y*.

45. (Currently Amended) The method according to claim 36, wherein at least one of said first, second or target excess material volume [[curve]] curves is the following function:

$$EM_{loc}(y_1, y_2) = \frac{V_{mat}(y_1, y_2) - V_{mold}(y_1, y_2)}{V_{mold}(y_1, y_2)}$$

wherein y_1, y_2 are two predetermined values of a variable representing said predetermined direction, $V_{mat}(y_1, y_2)$ is a volume of said elastomeric material between said values y_1, y_2, and ~~$V_{mold}(y)$~~ $V_{mold}(y_1, y_2)$ is a volume of said mold cavity between said values y_1, y_2.

46. (Currently Amended) The method according to claim 36, wherein at least one of said first, second or target excess material volume [[curve]] curves is the following function:

$$\Delta M_{loc}(y_1, y_2) = V_{mat}(y_1, y_2) - V_{mold}(y_1, y_2)$$

wherein y_1, y_2 are two predetermined values of a variable representing said predetermined direction, $V_{mat}(y_1, y_2)$ is a volume of said elastomeric material between said values y_1, y_2, and ~~$V_{mold}(y)$~~ $V_{mold}(y_1, y_2)$ is a volume of said mold cavity between said values y_1, y_2.

47. (Currently Amended) The method according to claim 36, wherein said ~~redetermined~~ predetermined direction is a radial direction.

48. (Currently Amended) A method for controlling a disposition of an uncured elastomeric material on a rigid support for [[the]] manufacturing [[of]] a green tyre [[to be]] molded and cured in a vulcanization mold, said vulcanization mold and said rigid

support defining a molding cavity such that at least one portion of [[the]] said green tyre is molded and cured at a substantially constant volume in at least one portion of said molding cavity, comprising:

providing a first positioning specification set for machinery associated with a disposition of said uncured elastomeric material on said support;

providing a cross-section profile of at least said portion of [[the]] said molding cavity; and

determining, from said first positioning specification set and from said molding cavity cross-section profile, a first excess material volume curve of said uncured elastomeric material with respect to an available volume in said portion of the molding cavity, versus a predetermined direction and controlling disposition based on said determining step.

49. (Previously Presented) The method according to claim 48, further comprising:

providing a target excess material volume curve; and

comparing said first curve with said target curve, so as to determine volume distribution differences between said first curve and said target curve versus said predetermined direction.

50. (Previously Presented) The method according to claim 48, further comprising:

determining a first cross-section profile of at least one portion of said green tyre from said first positioning specification set.

51. (Currently Amended) The method according to claim 50, further comprising:

modifying said first cross-section profile using [[said]] volume distribution differences between said first curve and said target curve, thereby determining a second cross-section profile of said green tyre portion.

52. (Previously Presented) The method according to claim 49, wherein said first or target excess material volume curve represents the following function:

$$EM(y) = \frac{V_{mat}(y) - V_{mold}(y)}{V_{mold}(y)}$$

wherein *y* is a variable representing said predetermined direction, $V_{mat}(y)$ is a volume of said elastomeric material between a reference point of said vulcanization mold and a value *y* of said variable, and $V_{mold}(y)$ is a volume of said mold cavity between said reference point and said value *y*.

53. (Previously Presented) The method according to claim 49, wherein said first or target excess material volume curve represents the following function:

$$\Delta M(y) = V_{mat}(y) - V_{mold}(y)$$

wherein *y* is a variable representing said predetermined direction, $V_{mat}(y)$ is a volume of said elastomeric material between a reference point of said vulcanization mold and a value *y* of said variable, and $V_{mold}(y)$ is a volume of said mold cavity between said reference point and said value *y*.

54. (Currently Amended) The method according to claim 49, wherein said first or target excess material volume curve represents the following function:

$$EM_{loc}(y_1, y_2) = \frac{V_{mat}(y_1, y_2) - V_{mold}(y_1, y_2)}{V_{mold}(y_1, y_2)}$$

wherein y_1, y_2 are two predetermined values of a variable representing said predetermined direction, $V_{mat}(y_1, y_2)$ is a volume of said elastomeric material between said values y_1, y_2, and ~~$V_{mold}(y)$~~ $\underline{V_{mold}(y_1, y_2)}$ is a volume of said mold cavity between said values y_1, y_2.

55. (Currently Amended) The method according to claim 49, wherein said first or target excess material volume curve represents the following function:

$$\Delta M_{loc}(y_1, y_2) = V_{mat}(y_1, y_2) - V_{mold}(y_1, y_2)$$

wherein y_1, y_2 are two predetermined values of a variable representing said predetermined direction, $V_{mat}(y_1, y_2)$ is a volume of said elastomeric material between said values y_1, y_2, and ~~$V_{mold}(y)$~~ $\underline{V_{mold}(y_1, y_2)}$ is a volume of said mold cavity between said values y_1, y_2.

56. (Previously Presented) The method according to claim 48, wherein said predetermined direction is a radial direction of said green tyre.

57. (Currently Amended) A ~~computer program directly loadable into a memory of a computer,~~ storage medium comprising a computer program for performing a method for controlling a disposition of an uncured elastomeric material on a rigid support for [[the]] manufacturing [[of]] a green tyre [[to be]] molded and cured in a vulcanization mold, said vulcanization mold and said rigid support defining a molding cavity such that at least one portion of [[the]] said green tyre is molded and cured at a substantially constant volume in at least one portion of said molding cavity, [[the]] said program comprising code portions that when executed are capable of being adapted for:

acquiring a first positioning specification set for a machinery associated with a disposition of said uncured elastomeric material on said support acquiring a cross-section profile of at least said portion of [[the]] said molding cavity; and

determining, from said first positioning specification set and from said molding cavity cross-section profile, a first excess material volume curve of said uncured elastomeric material with respect to an available volume in said portion of [[the]] said molding cavity, versus a predetermined direction and controlling disposition based on said determining step.

58. (Currently Amended) The ~~computer program~~ storage medium according to claim 57, further comprising code portions ~~capable of being~~ adapted for:

determining a target excess material volume curve; and

comparing said first curve with said target curve, so as to determine volume distribution differences between said first curve and said target curve versus said predetermined direction.

59. (Currently Amended) The ~~computer program~~ storage medium according to claim 57, further comprising code portions ~~capable of being~~ adapted for:

determining a first cross-section profile of at least one portion of said green tyre from said first positioning specification set.

60. (Currently Amended) The ~~computer program~~ storage medium according to claim 59, further comprising code portions ~~capable of being~~ adapted for:

modifying said first cross-section profile using [[said]] volume distribution differences between said first curve and said target curve, thereby determining a second cross-section profile of said green tyre portion.

61. (Currently Amended) The ~~computer program~~ storage medium according to claim 58, wherein said first or target excess material volume curve represents the following function:

$$EM(y) = \frac{V_{mat}(y) - V_{mold}(y)}{V_{mold}(y)}$$

wherein *y* is a variable representing said predetermined direction, $V_{mat}(y)$ is a volume of said elastomeric material between a reference point of said vulcanization mold and a value *y* of said variable, and ~~$V_{mold}(y)$~~ $V_{mold}(y_1, y_2)$ is a volume of said mold cavity between said reference point and said value *y*.

62. (Currently Amended) The ~~computer program~~ storage medium according to claim 58, wherein said first or target excess material volume curve represents the following function:

$$\Delta M(y) = V_{mat}(y) - V_{mold}(y)$$

wherein *y* is a variable representing said predetermined direction, $V_{mat}(y)$ is a volume of said elastomeric material between a reference point of said vulcanization mold and a value *y* of said variable, and $V_{mold}(y)$ is a volume of said mold cavity between said reference point and said value *y*.

63. (Currently Amended) The ~~computer program~~ storage medium according to claim 58, wherein said first or target excess material volume curve represents the following function:

$$EM_{loc}(y_1, y_2) = \frac{V_{mat}(y_1, y_2) - V_{mold}(y_1, y_2)}{V_{mold}(y_1, y_2)}$$

wherein y_1, y_2 are two predetermined values of a variable representing said predetermined direction, $V_{mat}(y_1, y_2)$ is a volume of said elastomeric material between

said values y_1, y_2, and ~~$V_{mold}(y)$~~ $V_{mold}(y_1, y_2)$ is a volume of said mold cavity between said values y_1, y_2.

64. (Currently Amended) The ~~computer program~~ storage medium according to claim 58, wherein said first or target excess material volume curve represents the following function:

$$\Delta M_{loc}(y_1, y_2) = V_{mat}(y_1, y_2) - V_{mold}(y_1, y_2)$$

wherein y_1, y_2 are two predetermined values of a variable representing said predetermined direction, $V_{mat}(y_1, y_2)$ is a volume of said elastomeric material between said values y_1, y_2, and ~~$V_{mold}(y)$~~ $V_{mold}(y_1, y_2)$ is a volume of said mold cavity between said values y_1, y_2.

65. (Currently Amended) The ~~computer program~~ storage medium according to claim 57, wherein said predetermined direction is a radial direction of said green tyre.

66. (Previously Presented) A computer program product comprising a computer readable medium on which the computer program of claim 57 is stored.